

REMARKS

Applicant is submitting this amendment with a Request for Continued Examination, seeking the Examiner's reconsideration of the Final Rejection.

The amendment presented above clarifies the automatic nature of steps of the claimed method, and further restates independent claim 18 to be directed to a contrast media injector system that carries out a filling method. Applicant believes that the apparatus claim 18 and its dependent claims are not restrictable from the method claims presented herein for the reason that the injector is defined as one that carries out a method similar in substance to method claims presented herein. If, however, the Examiner believes these claims are restrictable they will be canceled and presented in a subsequent divisional application.

On the merits the Examiner has continued a rejection of the claims based upon the Duchon reference, citing paragraph 169 thereof, and also Figs. 7B through 7D. Applicant respectfully submits that the claims presented herein distinguish from this prior art citation.

As noted in earlier responses, Duchon paragraph 169 describes filling a syringe at a rate of 2 ml/sec followed by filling at a rate of 3 ml/sec. As the Examiner has conceded, Duchon does not show a step or process for expelling liquid after the 2 ml/sec filling and before the 3 ml/sec filling. Although the Examiner thus recognizes that the present claims require an intermediate step of expelling fluid, the Examiner

asserts the claims are rejectable over Duchon for two reasons, which will be discussed below.

First, the Examiner asserts that “the step of performing remove the substantially all air is inherently and well-known during the filling method, we do not want any air to be injected in to the body. Furthermore, it would have been obvious to one of skill in the art to include the step of expelling air from the syringe, by expelling fluid from the syringe, if one wished to make sure that all air bubbles were expelled from the syringe.”

The Examiner appears to be saying that the known process of expelling air from a syringe would lead to the specific sequence recited by the present claims. Applicant strongly disagrees. What Duchon specifically teaches is that air is to be expelled from the syringe after the syringe is filled. Specifically, the sequence is to fill at 2 ml/sec, then at 3 ml/sec, then once full, expel air, and begin an injection. This is not the claimed sequence.

The Examiner’s attention is directed to Figs. 7A, 7B, 7C and 7D for these steps. In Fig. 7A the syringe is being filled. In Fig. 7B, the syringe has been filled, but there is an air bubble in the syringe, and the air is being expelled. In Fig. 7C the air has been fully expelled, causing the check valve 24 to close, and the injector is prepared to inject. In Fig. 7D, fluid is injected. There is no suggestion of a step between Fig. 7C and 7D for drawing additional fluid after the air bubble has been removed. Instead, the expulsion of air is immediately followed by injection.

The Examiner's second ground of rejection states: "Duchon also mentions that the step of filling the contrast fluid with contains trapped air at the first rate (Fig. 7B) is before the step of air has been expelled from syringe (Fig. 7C); and then filling the contrast at the second rate (Fig. 7D). Applicant submits that this ground is based on a misunderstanding of Fig. 7D, which illustrates the injection of fluid, not further filling. As noted above, filling is completed prior to the purging of air shown in Fig. 7C.

CONCLUSION

In view of this amendment, and the reasons articulated by Applicant, this application is submitted to be in complete condition for allowance and early notice to this effect is earnestly solicited. If there is any issue that remains which may be resolved by telephone conference, Examiner is invited to contact the undersigned in order to resolve the same and expedite the allowance of this application.

Applicants have submitted the required excess claim and extension of time fees with the transmittal of this response. If additional fees are deemed necessary, these may be charged to Deposit Account No. 23-3000.

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Respectfully submitted,

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